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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/950,081	09/12/2001	Hiroya Okumura	2001-1255A	1556

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EXAMINER	
RUTHKOSKY, MARK	

ART UNIT	PAPER NUMBER
1745	

DATE MAILED: 11/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/950,081	OKUMURA ET AL.	
	Examiner	Art Unit	
	Mark Ruthkosky	1745	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 August 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8 and 10-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8 10-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The rejection of claims 1-19 under 35 U.S.C. 112, second paragraph, has been overcome by the applicant's amendment

Specification

The amendment filed 1/5/2004 and objected to under 35 U.S.C. 132 has been overcome by the applicant's amendment.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 10 and 16-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Emanuelson et al. (4,301,222.)

The instant claims are to a resin composition for a separator of a fuel cell, which comprises an electroconductive agent and a radical-polymerizable thermosetting resin system wherein the weight ratio of the electroconductive agent and a radical-polymerizable thermosetting resin system is 65/35 to92/8.

Emanuelson et al. (4,301,222) teaches a resin composition for a separator of a fuel cell, which consists essentially of an electroconductive agent and a radical-polymerizable, thermosetting resin system (see claim 1.) The materials are mixed and molded to form a fuel cell separator plate (col. 9, line 15.) It is noted that mixing inherently involves applying pressure to the material and that kneading and mixing are equivalent processes. Further, the weight ratio of the electroconductive agent and a radical-polymerizable thermosetting resin system is 65/35 (see col. 6, lines 35-45.)

With regard to the limitation that the resin is kneaded with a pressure kneader under a pressure of 9.8×10^3 to 9.8×10^5 Pa higher than atmospheric pressure, this limitation is a product by process limitation. MPEP 2113 states, "Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." Thus, the claims are anticipated.

Claims 1-8 and 10-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Butler (US 6,251,308.)

Butler (US 6,251,308) teaches a resin composition for a separator of a fuel cell comprising an electroconductive agent and a radical-polymerizable thermosetting resin system (see column 4.) The electroconductive agent includes carbonaceous materials such as graphite in various concentrations including a range from 65/35 to 92/8 (col. 4, lines 37-65.) The radical-polymerizable thermosetting resin system includes a vinyl-ester series resin in which

methacrylate is added to a bisphenol A resin (col. 4, lines 15-40.) A radical-polmerizable dilutant of styrene is added in a specific range (col. 4, lines 25-40.) The double bond equivalent and glass transition temperature of the composition are inherent features of the compound. Low-profile agents are noted throughout the reference (including the various compounds in columns 5 and 6.) The agents are added in the range of 0.1 to 30 parts (wt.) relative to the radical-polymerizable thermosetting resin system. An example includes polyvinyl acetate (col. 6, lines 37-end.) Molding and mixing the materials, including pressure kneading and molding, are noted in col. 6, line 60 to col. 7. It is noted that mixing inherently involves applying pressure to the material and that kneading and mixing are equivalent processes.

With regard to the limitation that the resin is kneaded with a pressure kneader under a pressure of 9.8×10^3 to 9.8×10^5 Pa higher than atmospheric pressure, this limitation is a product by process limitation. MPEP 2113 states, "Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." Thus, the claims are anticipated.

Response to Arguments

Applicant's arguments with respect to claims 1-8 and 10-19 have been considered but are not persuasive. Applicant's arguments with respect to the claims rejected under 35 U.S.C. 103(a)

as being obvious over Butler (US 6,251,308.) in view of Emanuelson et al. (4,301,222) have been considered but are moot in view of the new ground(s) of rejection.

With regard to the applicant's arguments to Emanuelson et al., the reference teaches a ratio of conductive material to binder resin of 45-65 weight percent graphite powder to 55-35 weight percent resin. As this ratio includes the claimed percentage, the claims are anticipated. Arguments with regard to the properties of the separator plate are not sufficient to overcome a rejection under 35 U.S.C. 102.

With regard to the applicant's arguments to Butler et al., the reference teaches a ratio of conductive material to binder resin at various points in the claimed range of 65/35 to 92/8. As the ratio includes the claimed percentage, the claims are anticipated. Arguments with regard to the properties of the separator plate are not sufficient to overcome a rejection under 35 U.S.C. 102.

It is noted that the applicant's arguments with regard to unexpected results are not sufficient to overcome a rejection under 35 U.S.C. 102.

With regard to the applicant's arguments that the references do not teach a product made by a process wherein the conductive agent and resin are kneaded with a pressure kneader under a pressure of 9.8×10^3 to 9.8×10^5 Pa higher than atmospheric pressure, this limitation is a product by process limitation. MPEP 2113 states, "Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process."

Examiner Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Ruthkosky whose telephone number is 571-272-1291. The examiner can normally be reached on FLEX schedule (generally, Monday-Thursday from 9:00-6:30.) If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached at 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mark Ruthkosky
Primary Patent Examiner
Art Unit 1745

11/10/04